EMERGENCY ATTITUDE IN A CASE OF ANAPHYLACTIC SHOCK AT GRINTUSS ADMINISTATION IN A 4 MONTH OLD BABY

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Abstract

It was wanted to bring into the forefront a rare case encountered in a 4-month-old, potentially fatal at grintuss syrop administration. Anaphylactic shock is an immediate, brutal, dramatic, hypersensitivity reaction with hemodynamic collapse and respiratory failure after the entry into the body of any substance, especially protein that causes the release of chemical mediators. Recognizing anaphylactic shock and initiating emergency treatment can save the patient's life.

Key words: anaphylactic shock, sugar, grintuss

Introduction

Anaphylaxis is a generalized immunological reaction that suddenly occurs when the body is exposed to various foreign substances being a type 1 hypersensitivity reaction with degranulation of mast cells and basophils mediated by IgE, in response to triggering by various agents. The rapidity with which clinical signs are installed and severity is closely related to the type of allergen and its amount. Anaphylactic shock is therefore a severe anaphylaxis with cardio-circulatory and respiratory collapse.

Grintuss is indicated for the treatment of cough, both dry and productive. It has the warning "Do not use in case of hypersensitivity or individual allergy to one or more components of the product". Grintuss adult syrup is formulated with plant molecular complexes such as resins, polysaccharides with a molecular weight> 20,000 dalton ≥ 20% and flavonoids from grindelia *, patalaginum * and helichrysum * (Poliresin®). It also contains: sugar cane sugar *; the water; essential oils of: eucalyptus, star anise, lemon; natural lemon flavor; gum arabic; xanthan gum. All functional substances are ingredients from organic farming.

Case report

Follow-up of the clinical evolution after the diagnosis and the rapid establishment of the treatment of a 4-month-old patient discharged for 10 hours from the pediatric department where he was admitted for a 7-day period diagnosed with: Bronchiolitis; IRA light; Iron deficiency anemia. The patient comes from a low-income family with 5 illiterate children and parents, with a history of several admissions in the pediatric ward, predominantly respiratory diseases, in which he is without a doctor. The mother decided to administer the grintuss syrup because it was used in older children without complying with the medical indication at discharge. The grintuss syrup was for use in children over 12 years and in adults, the mother gave it only 1 ml affirmatively, and at 15 minutes there was a maculo-papular eruption, dysphonia and psycho-motor agitation; mother asks for the ambulance service that affirmatively confirms the possibility of consultation only in 10-15 minutes so the mother decides to come to our emergency service with the taxi service.

At the entrance to the emergency department, the patient is unconscious with respiratory arrest, generalized rash, cold, cyantic extremities, F.C-158 / min, TA- 40/25 mmHg, Glasgow-10. Ventilation on mask and balloon is decided. Immediate adrenaline 0.1% -0.15-150 μg ml of 1/1000 dilution is administered together with 25 mg hydrocortisone hemisuccinate. A venous line is obtained by which 0.3 ml arnetine 50 mg/2 ml and another 25 mg hydrocortisone hemisuccinate are administered, 0.9% physiological PEV is mounted.

The patient resumes spontaneous breathing and so nebulization can begin with dexamethasone, the plaques begin to resume, in dynamic clogging with dysphonic component. The vital constants stabilize F.C-144b / min, FR-24 / min SaO2- 99%, TA-80/45 mmHg when deciding on admission for follow-up and specific treatment.

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Discussion

In recent years, significant advances in diagnosis and Through its α1 adrenergic effects adrenaline improved laryngeal spasm and circulatory collapse, and through β2 adrenergic action induced bronchodilatation and reduced release of histamine and other mediators (1,2). It is known that there is a short period of opportunity, as only a dose by injecting im was effective (2,3). The lack of prompt administration of adrenaline increases the risk of biphasic anaphylactic reactions and even death (4).

The mother mistakenly administered cough syrup because she has administered the product for adults and children over 12 years of age. It is hard to see which ingredient the trigger factor in the anaphylactic shock was. Even if the syrup is given to children under the age of 12, we can not demonstrate when the anaphylaxis reaction occurred because the concentration of the substances is different from the adult recommended syrup.

It may also be suspected to increase immune reactivity due to the administration of antibiotics in association, ampicillin with gentamicin for 7 days for respiratory infectious pathology from recent history, discontinued treatment for only 24 hours. Confirmation of anaphylaxis could be made by determining the serum level of tryptase within 30-60 minutes of the onset of the reaction, when we should have values above 11.4 μg / L, values that are maintained 4-6 hours with decreasing in their 24h.

Determination of allergen-specific IgE may be useful in the future assessment of the patient, taking into account his age, with the possibility of defining the specificity of sensitization to certain substances but also of confirming the hypersensitivity to food. As a classic "challenge" test, the basophil degranulation test is the only in vitro tool for studying a large number of adverse reactions to food additives and medications (5, 6,7).

Children are described with 5 anaphylactic shock variants: typical, hemodynamic, with asphyxia, cerebral and abdominal variants. Reactions and allergic diseases in children up to one year are predominantly of food origin and occur in 40-60% of children (8,9). Unlike adults, children with systemic reactions limited to the skin have fewer chances of severe, respiratory or vascular manifestations (10,11).

The principles of treatment of anaphylactic shock in children are the same as in mature patients, respecting the doses of drug remedies in kg / body weight / 24 hours (12).

Conclusions

Intramuscular administration of adrenaline, airway management, vascular bed filling should be promptly established, depending on the life of the patient.

Allergic reactions occur in different body sectors: cutaneous, cardiovascular, respiratory, gastrointestinal, separately or in combination. Anaphylactic shock presents all clinical signs and hypotension.

Patients who have had anaphylaxis will be monitored for at least 24 hours.

The appearance of anaphylactic shock on the administration of a product with ingredients from organic farming is very rare, especially as it is a 4-month-old baby.

Even if we have the warning: "Do not use in case of hypersensitivity or individual allergy to one or more components of the product" the product is not free from the risk of producing an anaphylactic reaction.

The 3 flavonoid extracts from grindelia, patlagina, and helichrysum are known and used in antiquity in medicine for various therapeutic effects as opposed to eucalyptus oil which, even in relatively small amounts, can cause fatal overdoses as warned by the National Institutes of Health, and infants and young children should not ingest or inject eucalyptus oil. An allergic reaction to the anise in the composition of the cough syrup that falls under the category of coding allergens and food additives may also be incriminated.

Conflict of interest

The authors declare that there is no conflict of interest regarding the publication of this paper.

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MULTICYSTIC RENAL DYSPLASIA IN CHILDREN. CLINICAL-PARACLINICAL SPECIFICS. CLINICAL PRESENTATION FEATURES

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Abstract

The aim of the study is to investigate the clinical-paraclinical features, especially imagistic, morphopathological, in the diagnosis of multichistic renal dysplasia in children, especially in asymptomatic forms and therapeutic approaches to this subject.

The study refers to a group of 33 children with multiple urinary tract dysplasia (MUD) complicated with urinary tract infection 2009-2017. The authors present their own experience on the clinical-morphological diagnosis and treatment during the given period. It emphasizes the need for a differential diagnosis for choosing the optimal therapeutic solution. Multidisciplinary renal dysplasia in the child is a congenital kidney malformation due to embryonic disturbances, diagnosis being determined by the ultrasound examination during the intrauterine development of the fetus in the antenatal screening programs.

Key words: multicystic kidney, clinical-morphological examination, children

Introduction

Multicystic renal dysplasia (MRD) is a rare congenital abnormality, occurring in 1.1% of all renal and urinary abnormalities [1]. According to some studies, the incidence of MRD varies between 1: 3500, 1: 4000 live newborns [2]. Bilateral multicystic affection has a frequency of 1: 3600 newborns. In 55% cases the left kidney is affected, and in 45% - the right kidney [3]. The antenatal screening data compared to the neonatal one reveals MRD as a vicious disease of the reno-ureteral system encountered in fetuses, may be present both unilaterally and bilaterally and the latter is frequently incompatible with life. By gender, MRD is considered to be a higher predominance in male 2:1, a more frequent impairment of the left-sided ureteral complex [4].

Due to the mandatory use of ultrasound screening methods during the perinatal period, including the urinary system, perinatal ultrasound diagnosis has led to the detection of malformations at much earlier periods. On ecography MRD is described as a kidney malady without renal parenchyma, presenting multiple cystic formations of different size and number, filled with liquid that do not communicate with each other, forming a cystic pseudotumor with irregular shape. In the unilateral form, MRD is attested as a renal-ureteral dysplastic complex with an attenuated ureter, whereas the contralateral complex, attesting a well-functioning reno-ureteral system. Some studies reveal the MRD ureter, more commonly, as a hypoplasic ureter, atrestic or even totally absent, sometimes associated with vesicoureteral reflux, or the vesicoureteral reflux may also be present in the contralateral kidney, features encountered in 15-30% of patients [1,2]. According to the morphopathological studies, the cystic structures are cuboid epithelium-cladded, containing transparent liquid, but sometimes also reddish or brown. The cyst walls contain fibrous tissue, sometimes with hygienic sectors with calcinated islets. Embryologically, an abnormality occurs during the fusion of the ureteral burr and distal countersunk tubes. In some cases, the ureter may remain obstructed for much of its length [5]. The spectrum of other urinary tract abnormalities reported in association with the multicystic dysplasia kidney includes obstruction of the pituitary junction in up to 15% of patients and, less frequently, obstruction of the ureteral bladder junction, ureter and ureteral ectopia [2]. The ideal diagnostic approach for asymptomatic ureteral bladder reflux in patients with multicystic dysplasic kidney remains controversial.

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